worked in order to have the electrons to even flow in the environment where there was that type of an integrated digital loop carrier system connected to multiple switches, each owned and operated by different carriers.

So, you know, basically, we believe that, first, we don't have any of this equipment at all in Verizon Virginia, so that doesn't make a whole lot of sense to do a trial. On top of that, the Exhibit D information is probably about the level of depth that you would typically get from the readout of a first-stage trial to get the electrons to flow. It identifies a number of further industry issues that would need to be worked in order to successfully get the electrons to flow in a multiple carrier environment.

And I think, more importantly, the issues that are raised in the Alcatel document, they aren't issues that just Alcatel can solve, they're not issues that just Verizon can solve; they are really industry issues.

There is a GR 303 forum that Bell Corp

convenes. That group is basically responsible for the ongoing evolution of the GR 303 specification.

Verizon is a member of that group. Other LECs are members of that group. Other CLECs are members of that group. Manufacturers are members of that group.

It's an industry forum that basically works on the effort that's required to further build and expand and to modify and to change the GR 303 specification. And what Alcatel's letter indicates, correctly, is that there is further specifications, further standard-setting, further industry work that that body would have to do to then put the vendor and the carrier community in a position where they could potentially develop and use the GR 303 specification in a multiswitch plus multicarrier type of a configuration.

So that's pretty much our view of why we don't like the warm fuzzy puppy, and it kind of comes down to, we've got two methods that will always do. We will always put in copper, always put in universal carrier, one or the other, we'll issue

you an engineering job and build more stuff. That's what we do for ourselves.

We feel like we've already provided to Cavalier sufficient information that goes beyond typically or equals what would be the output from a first stage trial of getting the electrons to flow, and we think we've got a very thorough evaluation and sound conclusions that basically say those are the two methods that are going to be tremendously more expensive, which I tried to quantify and describe.

MR. LERNER: We won't hold that against your time, Mr. Perkins.

MR. PERKINS: Thank you.

(Laughter.)

MR. ALBERT: It's a little bit more than, whoa, we've got trouble. We have an answer, and we got the best one.

MS. NATOLI: Just so you know, that was a question the commission staff had, and we were going to ask that question, regardless of whether it was covered in your testimony -- or your cross, so I

just wanted to make that clear.

MR. PERKINS: I think Cavalier's puppy just got run over by the Verizon truck.

(Laughter.)

BY MR. PERKINS:

Q Mr. Albert, this is the first place I've seen this from Verizon, so tell me if I'm wrong, that Verizon does not use or deploy the GR 303 interface on any Verizon IDLC systems or switches in Virginia.

A (Mr. Albert) I could have sworn you asked me that at the 271 hearings, and that's what I said, but maybe I'm remembering Massachusetts hearings or New York hearings.

I mean, we have dealt with this issue starting from New York 271 through Massachusetts 271, and at the end of the line at the Virginia 271 hearings.

Q Well, I doubt that you talked about the deployment of equipment in Virginia or Massachusetts or New York.

A (Mr. Albert) The answer was the same in

those states. We don't have -- there was a couple limited trials that were done up in the north.

Q Really.

A (Mr. Albert) Yeah. But none in Virginia.

Q Okay. Is there some reason why some of these figures like the $170 per month in switching charges and the tying-together of the analysis that you provided in 1999 and this 1999 Alcatel letter and all was not included in your testimony?

A (Mr. Albert) No, just thought of it as a way to explain stuff. I mean, I thought -- you know, you say a lot of money, millions, I think people just say so what, so I tried to think of a way to try to estimate in teleterms what the switching would be.

If you read the words in the conclusion of the hairpin analysis we did, I tried to make that as clear as we could, that this stuff was mega, mega expensive, and we say right in there at the end, it's much cheaper to do copper or universal.

Q That gets back to the question that started you on your train of explanation, and that

is, is Verizon categorically opposed to, in essence, exploring some sort of unbundling trial?

MS. NEWMAN: I'm going to say objection, asked and answered. You asked him that before.

MR. PERKINS: No, he said he was opposed to the trial that we proposed. I just asked him if Verizon is categorically opposed to exploring any trial of unbundling loops served by IDLC.

MS. NEWMAN: I think you've already answered it, but you can answer it again.

MS. CLAYTON: I think maybe the important thing to say is we will, we are compliant with the TRO. The TRO came out and asked us to provide a technically feasible method of unbundled access, and we are doing that within the required time frame that the TRO established.

We don't have to trial the alternatives that we are proposing. We do them today.

BY MR. PERKINS:

Q You build copper for CLECs today?

MS. CLAYTON: We build copper facilities.

BY MR. PERKINS:

Q For CLECs?

A (Mr. Albert) For ourselves.

MS. CLAYTON: For ourselves.

THE WITNESS: (Mr. Albert) Prior to the TRO, when you hit the very narrow 1.2 percent of the lines, if you then got to the point where you had to do an engineering job to build more stuff, prior to the TRO, that's where we said no facilities.

Now, and I'm again not a lawyer, but it sure sounds to me like we've got to build it and put it in. We're going to do it the same way we do it for ourselves, and the least expensive, most efficient methods are the copper and the universal digital loop carrier.

BY MR. PERKINS:

Q Where you have IDLC, UDLC and some amount of spare copper in the field, isn't it true that you can, if there is substantial, say 50 percent market share by a CLEC developed rapidly or at least -- strike rapidly -- deplete the availability of loops served by UDLC or spare copper?

A (Mr. Albert) You could, and then we would

have to put in more. I guess the way I'd answer that, though, is if you have to put in -- if you're rapidly depleting the facility at a location, the engineering guidelines that we have basically, say, when we provide additional facilities to a customer location, at that point in time, we will always add some amount of universal or some amount of copper, if neither of those are existing.

That's why this very narrow percentage has been coming down over the years. At the time of the 271 hearings, I said it was 1.5 percent of the working lines in Virginia. That was about a year ago. Now we're down to 1.2. And at the 271 hearings, I said prior to then what was the current 1.5, a year before that we had been around 2 percent.

So over the course of two years, this narrow universe has already decreased from 2 percent of the working lines down to 1.2 percent. That's a direct result of the engineering guidelines we have that say we've got to fix these situations, you know, as we put more facilities in, and when we do,

we'll write off at the get-go and make sure we've got ones that are unbundlible.

Q Is that a technical term of art?

A (Mr. Albert) Yeah, and it's in my testimony, too. I threw it in there. A number of the lawyers cut that stuff out. But unbundlible, yes.

(Laughter.)

Q Now, that 1.2 percent, that can vary somewhat substantially within a given wire center, can't it, or given locale of either lower or higher?

A (Mr. Albert) Yes, it could.

Q Now, if a given area or set of customers is served on IDLC and there is -- let me strike that, please. Start that one over.

We have a given customer in a new area that's IDLC only or IDLC, and there's spare copper and UDLC loops are exhausted. Verizon doesn't have to do anything to provide voice grade service or maybe even other services to that customer; is that right, to serve that customer over the IDLC loop?

A If they request POT service, we can put it

over that loop. There are a number of nonswitch special services that if they request those, we cannot provide them. In those cases, what we would do for ourselves is we would put in either additional copper or additional universal digital loop carrier so that we could provide that service. That's why I said for ourselves, you know, we're providing the same two methods that we use.

Q Let's limit it to voice grade service, just POTS, plain old telephone service. Verizon doesn't have to do anything additional to serve that customer; is that right?

A (Mr. Albert) That's -- you're correct, because Verizon can provide both the loop as well as our switching in one blob, using integrated digital loop carrier.

Q And if Cavalier wants to serve that customer under the terms proposed by Verizon, Cavalier would have to pay the amounts of money for UDLC or copper proposed -- under the rates proposed by Verizon to provide hot service to that customer; is that correct?

A (Mr. Albert) I run when anybody says rates. I will defer to Rose.

A (Ms. Clayton) Explain the situation again. Is it --

Q We have a customer served -- excuse me. We have a customer on a loop served by IDLC, potential customer, calls Verizon and says I want service, Verizon can provide service over that -- through that IDLC through that loop; correct?

A (Ms. Clayton) Correct.

Q Okay. Customer calls Cavalier and says, I want Cavalier's service, POTS, plain old telephone service, there's no UDLC loops, no spare copper available right now. Isn't it correct that Cavalier can only provide that service by paying the rates proposed by Verizon if those rates and terms are accepted, by paying those rates proposed by Verizon for either additional UDLC capacity or construction of additional copper?

A (Mr. Albert) I'm sorry, did you say that there was no spare copper, but that meant that there is copper there?

Q Maybe I need to break that out. If it's a different answer depending on that, maybe we need to break it out.

A (Mr. Albert) It is, because it gets into a line and station transfer, which is a step that we go through.

A (Ms. Clayton) I assume you're talking post triennial.

Q Yes.

A (Ms. Clayton) Post triennial, again, we have answered the order and are providing technically feasible means of unbundled access in a number of ways. One could potentially be, as Don just mentioned, line and station transfer. It could be a multiple step line and station transfer.

We've agreed to move our existing working customers off of a facility in order to free it up for a CLEC and move our own customer onto a different type of facility. That is one action that could be taken.

If that is done, yes, there is a charge associated with the line and station transfer. The

other option --

Q I'm sorry, may I interrupt for just a moment? That's the charge proposed by Verizon in its counterproposal in this arbitration?

A (Ms. Clayton) I believe we have proposed a rate for -- actually, let me clarify.

A line and station transfer has been in existence already to address situations we run into with DSL stand-alone loops today. This commission has seen, I believe, the line and station transfer language as well as the rates that we bill in Virginia.

Q I'm sorry, please continue.

A (Ms. Clayton) The second action that we could take, if an LST is not an option, would be as Don mentioned, build out a UDLC type facility. In that case, yes, there is an expense that is associated with an engineering query to see if the job can be performed, an engineering work order, if the CLEC agrees that, yes, they want us to go ahead, they do want to provision facilities, and there could be time and material related charges to

actually build out a facility.

Q And there's also the building additional copper; is that correct?

A (Ms. Clayton) There would be costs associated with that, yes.

MR. PERKINS: Thank you.

MS. CLAYTON: You're welcome.

MR. MAHER: Let me start, then, with Cavalier. Mr. Albert explained the concerns that Verizon has was the specific trials proposed by Cavalier. I was just wondering what your response or take on that is.

MR. VERMEULEN: Well, first of all, with regard to switch multihosting, we were not aware, we assumed that Verizon had GR 303 employed in the network. And when we covered they do not, obviously switch multihosting is not an option.

Secondly, with regard to hairpinning, we do know that there are other LECs that have somehow accomplished this task that have been through a trial, and it's one of the ways they offer competitive carriers access to areas served by

integrated digital loop carrier. I don't know how they got through it, but somehow they did.

What we were trying to do is to work with Verizon and come up with a method that -- in which we are able to reach customers that are at -- that are served by RTs -- that are only served by integrated digital loop carrier. It's that simple.

MR. MAHER: That's all.

MR. MILLER: I'm just going to ask Verizon if you could, in your briefs, please identify all the changes and policies and procedures that you have made as a result of the triennial review order taking effect. It might just be what Mr. Albert and Ms. Clayton referenced with regard to IDLC. And we ask you to organize it consistent with how we directed you about the issues, at least in a footnote, try to list in one point, all the different changes to the procedures that you all have made. Thanks.

MS. NATOLI: I have a question. So let me just make sure I understand. If in implementing the requirement in the triennial to provide either

copper or a UDLC or some other technically feasible method, your technically feasible method will always be -- your position will always be that it will either be to build spare copper, if there isn't spare available, or the -- to do whatever is necessary to make UDLC available? You won't -- you're not considering -- that's your other technically feasible method, if there isn't any already existing?

MS. CLAYTON: Or to swap to an existing facility. Either spare --

MS. NATOLI: To do that thing with your customers -- switching your customers.

MS. CLAYTON: Correct.

MR. ALBERT: Correct.

MS. NATOLI: If you, in that scenario, though, of building or the new copper, would you charge, then, Cavalier not just the price of the copper loop or the UDLC loop, whatever that charge is to get one that's already there, the new -- whatever is involved in actually building it, building the new piece?

MS. CLAYTON: Yes.

MS. NATOLI: You would.

MS. CLAYTON: We would bill them. Those are facilities that do not exist today. The loop itself exists, but we would have to alter the existing IDLC facilities and actually build out in those cases. And there would be charges associated with that, to anyone who ordered from us.

MS. NATOLI: Well, let me ask you this. When you do that for your private -- your customer that you say takes nonswitched, a nonswitched service that you couldn't put over that existing IDLC loop that's out to that building, or that area in the scenario Mr. Perkins mentioned, if that customer wanted nonswitch service, you would put the physical facilities in, you said, to serve it; correct?

MR. ALBERT: That's correct.

MS. NATOLI: And you would charge that customer the construction charges associated with that, would you?

MS. CLAYTON: Not necessarily. I mean,

Verizon does incur costs in those cases, because again, we are building out.

MS. NATOLI: Sure.

MS. CLAYTON: But the way that we allocate cost is different in the retail market as it is in the wholesale market. We could recover those costs in another way, under different product offerings, allocated to different customers or, you know, just in a different way than we do in the wholesale arena.

MS. NATOLI: Okay. But I just want to understand, if the spare copper loop is available, then it would be rated to Cavalier, just as a normal, recurring and nonrecurring charge for a copper loop, if there is already one there?

MS. CLAYTON: If there is --

MS. NATOLI: Well, in this scenario, there's not going to be -- say this is a scenario where everybody is being served by IDLC carrier now, but previously there was copper there, and so there is spare copper there. So Verizon -- Cavalier wants to take the customer that you're serving over IDLC,

you've got spare copper there, you're going to just give them the spare copper, they're charged, recurring nonrecurring charge for copper loop?

MS. CLAYTON: Are you talking about moving one of our existing customers or not to free up a facility?

MS. NATOLI: No, no, the copper is just there.

MS. CLAYTON: The copper is spare. That would be considered a swap of facilities, and we would bill them, I believe the charge is $127 for line and station transfer.

MS. NATOLI: To convert your customer from IDLC to that spare copper before then, they could get the spare copper.

MS. CLAYTON: That would allow us to offer Cavalier a customer who is currently served on IDLC, offer them, the customer and the loop over copper, once we make that swap in facilities.

MS. NATOLI: So that's a line and station, therefore, so there's a charge associated with that, in addition to the recurring and nonrecurring

monthly charges that --

MS. CLAYTON: Well, what Cavalier would be paying for at that point are the recurring and nonrecurring charges associated with the bundled loop itself, yes.

MS. NATOLI: That's right. That's what I meant.

MS. CLAYTON: Yes.

MS. NATOLI: Now, contrast that with a situation where there is no copper there at all, under the triennial -- some method has got to be provided, and we've already said why hairpin and whatever according to Verizon doesn't work. So you're going to lay copper, figure out how to get it there. Then there's no line and station transfer, or is there?

There is that to get them to transfer them to that facility, plus the construction charges and then the monthly recurring and nonrecurring charges?

MS. CLAYTON: No. If we were building out a new facility, either new copper or new UDLC, then they would not pay a line and station transfer

charge; they would pay an engineering query, an engineering work order, if they instructed us to go ahead, and the time and materials charge. But not the LST.

MS. NATOLI: Okay. Because that -- okay. But I assume that the cost associated with switching them over from your line to there is somehow included in those other charges that --

MS. CLAYTON: Yes.

MS. NATOLI: -- you've just identified that cost somehow.

MS. CLAYTON: That's right.

MR. MILLER: In the situation Ms. Natoli was referring to, if there were an option -- if you were considering either building out UDLC or building out a new copper facility, and those cost different amounts, would the CLEC ever have a choice in terms of if there are different charges for each, or do you just choose one and offer that to the CLEC?

MS. CLAYTON: They would definitely have a choice. As a matter of fact, if I could back up a

little, I had said earlier that line and station transfers have been around ever since we implemented a DSL stand-alone loop.

When a line and station transfer happened in the past, when it involved simply a stand-alone DSL loop, we weren't able to tell that we were in a situation that would require an LST until we were actually in the provisioning process.

So the way that it works today is, we would receive an order for a DSL stand-alone loop, we start provisioning the order, find out that an LST was required, and would continue to process the order with an LST.

A CLEC would not have an opportunity in yesterday's environment to say, yes, we understand there's a charge involved, we agree, go ahead with the order, or they would cancel the order.

Post triennial, because of some of the activity that we're involved in now, we have said it's appropriate to stop the order upon inquiry. If there is going to be a construction charge involved, either a line and station transfer or a build-out of

copper or UDLC facilities, query the CLEC back first, let them know that action needs to be taken, we would let them know if it's going to be a line and station transfer or a build-out of facilities.

If it is a build-out of facilities, either copper or UDLC, our engineers would prepare a rate proposal. That time and materials or rate proposal would go back to the CLEC before we did anything with the order.

So they would have to actually tell us if they wanted us to proceed with that work order or not. They would only be billed if a firm order were placed.

MS. NATOLI: All right. So if your customer, your retail customer, wanted -- again, needed a capability that couldn't be done over the IDLC, and you needed to make this happen to serve that customer, how much addition you said that you don't charge them or you're not aware that you would charge that customer the time and materials --

MS. CLAYTON: Let me clarify something. I think you probably heard it said earlier that we can

serve customers over IDLC.

MS. NATOLI: Right. But not this nonswitched -- not a private line type thing.

MS. CLAYTON: If it's an end user who was asking for DSL-type service, Verizon DSL, let's say, that does require a copper facility, Verizon would order using the same interfaces as a CLEC, and we would internally bill the LST charge to Verizon.

So they are going through that same LST activity in charging that a CLEC would go through. That is the one scenario I can think of where we would need to convert them from an IDLC to a copper facility.

MS. NATOLI: But your end user customer isn't being billed those costs like that -- being billed those costs.

MS. CLAYTON: Actually, I'm not on that side of the retail market that deals with end user DSL customers. I don't know if they pass that cost along to their end user or not in their price plan.

MS. NATOLI: Do you know just how much time it would take to do -- go through this whole

process of proposing the two different ways and giving them the CLEC, whoever it is, the opportunity to review the pricing proposal before you actually get the loop -- the loop is actually there for them to convert the customer?

MS. CLAYTON: Well, the issue came up earlier today about our loop qualification tools. One of the enhancements that we are looking at is enhancing those tools to clearly tell a CLEC up front whether a customer served by IDLC, whether we think we can perform an LST-type activity or not.

Beyond that, if an order is placed, we generally respond within three business days to let them know if IDLC is the only thing serving that customer and if we do need to take additional action to provision a facility.

MS. NATOLI: But then to provision the facility, you don't -- you don't have knowledge about how long that might take?

MS. CLAYTON: Well, to provision the facility, if it's a single-step LST, that can normally be done within the intervals that are in